

## AMENDMENTS

### In the Claims

1. (Currently Amended) A computer-implemented method for capacity reservation based on historical customer delivery data, comprising the steps of:
  - acquiring historical customer delivery data of a plurality of customers, wherein the historical customer delivery data comprises delivery time requirements corresponding to each customer, wherein the delivery time requirements comprise requirements selected from the group consisting of fixed delivery time requirements, distributed delivery time requirements, and floating delivery time requirements;
  - classifying the customers into a plurality of different categories according to the historical customer delivery data; and
  - reserving production capacity for the customers in accordance with the different categories.
2. (canceled)
3. (canceled)
4. (Currently Amended) The computer-implemented method as claimed in claim 1, wherein classification further comprises:
  - designating customers with fixed delivery time requirements as first category customers;
  - designating customers with distributed delivery time requirements as second category customers; and

designating customers with floating delivery time requirements as third category customers.

5. (Currently Amended) The computer-implemented method as claimed in claim 1, wherein reservation further comprises:

reserving capacity for the first category customers;

calculating a first remaining capacity;

reserving the first remaining capacity for the second category customers;

calculating a second remaining capacity; and

reserving the second remaining capacity for the third category customers.

6. (Previously Presented) A storage medium for storing a computer program providing a method of capacity reservation based on historical customer delivery data, the method comprising the steps of:

acquiring historical customer delivery data of a plurality of customers, wherein the historical customer delivery data comprises a plurality of delivery time requirements, wherein the delivery time requirements further comprise requirements selected from the group consisting of fixed delivery time requirements, distributed delivery time requirements, and floating delivery time requirements;

classifying the customers into a plurality of different categories according to the historical customer delivery data; and

reserving production capacity for the customers in accordance with the different categories.

7. (canceled)
8. (canceled)
9. (Original) The storage medium as claimed in claim 6, wherein classification further comprises:
  - designating customers with fixed delivery time requirements as first category customers;
  - designating customers with distributed delivery time requirements as second category customers; and
  - designating customers with floating delivery time requirements as third category customers.
10. (Original) The storage medium as claimed in claim 6, wherein reservation further comprises:
  - reserving capacity for the first category customers;
  - calculating a first remaining capacity;
  - reserving the first remaining capacity for the second category customers;
  - calculating a second remaining capacity; and
  - reserving the second remaining capacity for the third category customers.
11. (Previously Presented) A system of capacity reservation based on historical customer delivery data, comprising:
  - a customer interface configured to acquire historical customer delivery data of a plurality of customers, wherein the historical customer delivery data comprises a

plurality of delivery time requirements, wherein the delivery time requirements further comprise requirements selected from the group consisting of fixed delivery time requirements, distributed delivery time requirements, and floating delivery time requirements;

a customer database configured to store the historical customer delivery data of the customers;

a controller computer, coupled to the customer interface and the customer database, the controller computer configured to classify the customers into a plurality of different categories according to the historical customer delivery data and reserving production capacity in accordance with the categories.

12. (canceled)

13. (canceled)

14. (Previously Presented) The system as claimed in claim 11, wherein the controller computer further designates customers with fixed delivery time requirements as first category customers, designates customers with distributed delivery time requirements as second category customers, and designates customers with floating delivery time requirements as third category customers.

15. (Original) The system as claimed in claim 11, wherein the controller computer further reserves capacity for the first category customers, and calculates a first remaining capacity, reserves the first remaining capacity for the second category customers, and calculates a second remaining capacity, and reserves the second remaining capacity for the third category customers.

16. (Original) A system of demand and capacity management, comprising:

an allocation planning module configured to receive a demand plan for a product from a participating customer;

a capacity model having route information for the product, wherein the route information records a plurality of tools; and

a capacity management module configured to reserve capacity according to the demand plan.

17. (Original) The system as claimed in claim 16, wherein the capacity management module further comprises:

a data input module, configured to acquire historical customer delivery data of a plurality of customers;

a classification module, configured to classify the customer into a plurality of different categories according to the historical customer delivery data; and

a reservation module, configured to reserve capacity for the customers in accordance with the different categories.

18. (Original) The system as claimed in claim 17, wherein the historical customer delivery data comprises a plurality of delivery time requirements.

19. (Original) The system as claimed in claim 18, wherein the delivery time requirements further comprise requirements selected from the group consisting of fixed delivery time requirements, distributed delivery time requirements, and floating delivery time requirements.

20. (Original) The system as claimed in claim 17, wherein the classification module further comprises:

- a first designation module, configured to designate customers with fixed delivery time requirements as first category customers;
- a second designation module, configured to designate customers with distributed delivery time requirements as second category customers; and
- a third designation module, configured to designate customers with floating delivery time requirements as third category customers.

21. (Original) The system as claimed in claim 17, wherein the reservation module further comprises:

- a first reservation module, configured to reserve capacity for the first category customers;
- a first calculation module, configured to calculate a first remaining capacity;
- a second reservation module, configured to reserve the first remaining capacity for the second category customers;
- a second calculation module, configured to calculate a second remaining capacity; and
- a third reservation module, configured to reserve the second remaining capacity for the third category customers.